



SEQUENCE LISTING

<110> PARANTO, GUILLERMO, GLAUCIA
MALLET, FRANCOIS
VOISSET, CECILE

<120> ENDOGENEOUS NUCLEIC ACID FRAGMENT ASSOCIATED WITH AN AUTOIMMUNE
DISEASE, LABELING METHOD AND REAGENT

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<140> 10/632,793
<141> 2003-08-04

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<151> 2000-01-21

<150> US 09/869,927
<151> 2001-08-17

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 <213> Homo sapiens

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<210> 24
<211> 1948
<212> DNA
<213> Homo sapiens

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<220>
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<223> n = a or g or c or t/u

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<220>
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<223> n = a or g or c or t/u

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1948

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<211> 1136
<212> DNA
<213> Homo sapiens

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<211> 2782
<212> DNA
<213> Homo sapiens

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 <211> 666
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (119)..(119)
 <223> n = a or g or c or t/u

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<210> 28
 <211> 3372
 <212> DNA
 <213> Homo sapiens

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ctcagccrat	ggatgccctg	gattctcccc	ttcttaggac	ctctagcagc	tataatattg	6960
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gaagctgtra	aactacaaat	ggagcccaag	atgcagtcca	agactaagat	ctaccgcaga	7080
cccctggacc	ggcctgytag	cccacgatct	gatgttaatg	acatcaaagg	caccctcct	7140
gaggaaatct	cagctgcaca	acctctacta	cgcccccaatt	cagcaggaag	cagttagagc	7200
ggtsgtcggc	caacctcccc	aacagcactt	aggttttcct	gttgagatgg	gggactgaga	7260
gacaggacta	gctggatttc	ctaggctgay	taagaatccy	taagcctags	tgggaaggtg	7320
accacatcca	cctttaaaca	cggggcttgc	aacttagytc	acacctgacc	aatcagagag	7380
ctcactaaaa	tgctaattag	gcaaagacag	gaggtaaaga	aatagccaat	catytattgc	7440
mtgagagcac	agcaggaggg	acaatgatcg	ggatataaac	ccaagtyttc	gagccggcaa	7500
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<400> 31

Met Gly Asn Ile Pro Pro Lys Ala Lys Thr Pro Leu Arg Cys Ile Leu
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Glu Asn Trp Asp Gln Cys Asp Thr Gln Thr Leu Arg Lys Lys Arg Phe
20 25 30

Ile Phe Phe Cys Ser Thr Ala Trp Pro Gln Tyr Pro Leu Gln Gly Arg
35 40 45

Glu Thr Trp Leu Pro Glu Gly Ser Ile Asn Tyr Asn Ile Ile Leu Gln
50 55 60

Leu Asp Leu Phe Cys Arg Lys Glu Gly Lys Trp Ser Glu Val Pro Tyr
65 70 75 80

Val Gln Thr Phe Phe Ser Leu Arg Asp Asn Ser Gln Leu Cys Lys Lys
85 90 95

Cys Gly Leu Cys Pro Thr Gly Ser Pro Gln Ser Pro Pro Pro Tyr Pro
100 105 110

Ser Val Pro Pro Pro Thr Pro Ser Ser Thr Asn Lys Asp Pro Pro Leu
115 120 125

Thr Gln Thr Val Gln Lys Glu Ile Asp Lys Gly Val Asn Asn Glu Pro
130 135 140

Lys Ser Ala Asn Ile Pro Arg Leu Cys Pro Leu Gln Ala Val Arg Gly
145 150 155 160

Gly Glu Phe Gly Pro Ala Arg Val Pro Val Pro Phe Ser Leu Ser Asp
165 170 175

Leu Lys Gln Ile Lys Ile Asp Leu Gly Lys Phe Ser Asp Asn Pro Asp
180 185 190

Gly Tyr Ile Asp Val Leu Gln Gly Leu Gly Gln Ser Phe Asp Leu Thr
195 200 205

Trp Arg Asp Ile Met Leu Leu Leu Asn Gln Thr Leu Thr Pro Asn Glu
210 215 220

Arg Ser Ala Ala Val Thr Ala Ala Arg Glu Phe Gly Asp Leu Trp Tyr

225		230		235		240
Leu Ser Gln Val	Asn Asn Arg Met Thr Thr Glu Glu Arg Thr Thr Pro					
	245			250		255
Thr Gly Gln Gln Ala Val Pro Ser Val Asp Pro His Trp Asp Thr Glu						
	260			265		270
Ser Glu His Gly Asp Trp Cys His Lys His Leu Leu Thr Cys Val Leu						
	275			280		285
Glu Gly Leu Arg Lys Thr Arg Lys Lys Pro Met Asn Tyr Ser Met Met						
	290			295		300
Ser Thr Ile Thr Gln Gly Lys Glu Glu Asn Pro Thr Ala Phe Leu Asp						
305		310		315		320
Arg Leu Arg Glu Ala Leu Arg Lys His Thr Ser Leu Ser Pro Asp Ser						
	325			330		335
Ile Glu Gly Gln Leu Ile Leu Lys Asp Lys Phe Ile Thr Gln Ser Ala						
	340			345		350
Ala Asp Ile Arg Lys Asn Phe Lys Ser Leu Pro						
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Pro Arg Thr Tyr Ser Gly Glu Leu Gly Pro Met His Ser Asp Ala Lys						
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Lys Glu Thr Ile Tyr Ile Leu Leu Gln Tyr Arg Leu Ala Thr Ile Ser						
	20			25		30

Ser Ser Arg Glu Arg Asn Leu Ala Ser Gly Lys Tyr Lys Leu His His
35 40 45

Leu Thr Ala Arg Pro Leu Leu Lys Gly Gly Gln Met Glu Ser Ala Ile
50 55 60

Cys Ala Asn Phe Leu Phe Ile Lys Arg Gln Leu Thr Ile Met Lys Val
65 70 75 80

Trp Phe Met Pro Tyr Arg Lys Pro Ser Glu Ser Thr Ser Leu Pro Gln
85 90 95

Arg Pro Leu Pro Asp Ser Phe Leu Asn Gly Pro Pro Phe Asn Pro Asn
100 105 110

Gly Pro Lys Gly Asp Arg Gln Arg Gly Lys Gln Thr Lys Glu Cys Gln
115 120 125

Tyr Ser Pro Ile Met Pro Pro Pro Ser Ser Glu Arg Arg Arg Ile Arg
130 135 140

Pro Ser Gln Ser Ala Cys Thr Phe Phe Ser Leu Arg Leu Lys Ala Asn
145 150 155 160

Asn Arg Pro Arg Ile Leu Arg Pro Arg Leu Tyr Cys Phe Thr Arg Val
165 170 175

Arg Thr Ile Leu Ser Asp Met Glu Arg Tyr Asn Val Thr Thr Lys Ser
180 185 190

Asp Thr Asn Pro Lys Glu Lys Cys Arg Cys Asn Cys Ser Pro Arg Val
195 200 205

Trp Arg Ser Leu Val Ser Gln Ser Gly Gln Gln Asp Asp Asn Arg Gly
210 215 220

Lys Asn Asn Ser His Arg Pro Ala Gly Ser Ser Gln Cys Arg Pro Ser
225 230 235 240

Leu Gly His Arg Ile Arg Thr Trp Arg Leu Val Pro Gln Thr Phe Ala
245 250 255

Asn Leu Arg Ala Arg Arg Thr Glu Glu Asn Glu Glu Ala Tyr Glu Leu
260 265 270

Leu Asn Asp Val His Tyr Asn Thr Gly Lys Gly Arg Lys Ser Tyr Cys
275 280 285

Phe Ser Gly Gln Thr Lys Gly Gly Ile Glu Glu Ala Tyr Leu Pro Val
290 295 300

Thr Leu Tyr Arg Pro Thr Asn Leu Lys Gly Val Tyr His Ser Val Ser
305 310 315 320

Cys Arg His Lys Lys Leu Gln Lys Ser Ala Leu Gly Pro Glu Gln Asn
325 330 335

Leu Glu Thr Leu Phe Asn Leu Ala Ser Ser Val Phe Tyr Asn Arg Asp
340 345 350

Gln Glu Glu Gln Ala Lys Arg Asp Lys Arg Asp Lys Lys Lys Arg Gly
355 360 365

Gly Pro Leu Leu Ser Trp Pro Ser Gly Lys Gln Thr Leu Glu Ala Leu
370 375 380

Gln Lys Gly Lys Ala Gly Gln Ile Lys Cys Leu Ile Gly Leu Ala Ser
385 390 395 400

Ser Ala Val Tyr Lys Asp Thr Leu Lys Lys Ile Ile Gln Val Glu Ile
405 410 415

Ser Arg Pro Leu Val His Ala Pro Tyr Val Lys Gly Ile Thr Gly Arg
420 425 430

Pro Thr Ala Pro Gly Asp Glu Asp Thr Leu Ser Gln Lys Pro Leu Thr
435 440 445

Arg Ser Ser Ser Arg Thr Glu Gly Ala Arg Gly Glu Arg Gln Pro Met
450 455 460

Pro Ser Pro Ser Gln Ser Pro Gly Tyr Val Pro Leu Arg Ala
465 470 475

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<400> 35

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Arg Lys Lys Arg Phe Ile Phe Phe Cys Ser Thr Ala Trp Pro Gln Tyr
20 25 30

Pro Leu Gln Gly Arg Glu Thr Trp Leu Pro Glu Gly Ser Ile Asn Tyr
35 40 45

Asn Ile Ile Leu Gln Leu Asp Leu Phe Cys Arg Lys Glu Gly Lys Trp
50 55 60

Ser Glu Val Pro Tyr Val Gln Thr Phe Phe Ser Leu Arg Asp Asn Ser
65 70 75 80

Gln Leu Cys Lys Lys Cys Gly Leu Cys Pro Thr Gly Ser Pro Gln Ser
85 90 95

Pro Pro Pro Tyr Pro Ser Val Pro Ser Pro Thr Pro Ser Ser Thr Asn
100 105 110

Lys Asp Pro Pro Leu Thr Gln Thr Val Gln Lys Glu Ile Asp Lys Gly
115 120 125

Val Asn Asn Glu Pro Lys Ser Ala Asn Ile Pro Arg Leu Cys Pro Leu
130 135 140

Gln Ala Val Arg Gly Gly Glu Phe Gly Pro Ala Arg Val Pro Val Pro
145 150 155 160

Phe Ser Leu Ser Asp Leu Lys Gln Ile Lys Ile Asp Leu Gly Lys Phe
165 170 175

Ser Asp Asn Pro Asp Gly Tyr Ile Asp Val Leu Gln Gly Leu Gly Gln
180 185 190

Ser Phe Asp Leu Thr Trp Arg Asp Ile Met Leu Leu Leu Asn Gln Thr
195 200 205

Leu Thr Pro Asn Glu Arg Ser Ala Ala Val Thr Ala Ala Arg Glu Phe
210 215 220

Gly Asp Leu Trp Tyr Leu Ser Gln Ala Asn Asn Arg Met Thr Thr Glu
225 230 235 240

Glu Arg Thr Thr Pro Thr Gly Gln Gln Ala Val Pro Ser Val Asp Pro
245 250 255

His Trp Asp Thr Glu Ser Glu His Gly Asp Trp Cys His Lys His Leu
260 265 270

Leu Thr Cys Val Leu Glu Gly Leu Arg Lys Thr Arg Lys Lys Pro Met
275 280 285

Asn Tyr Ser Met Met Ser Thr Ile Thr Gln Gly Lys Glu Glu Asn Leu
290 295 300

Thr Ala Phe Leu Asp Arg Leu Arg Glu Ala Leu Arg Lys His Thr Ser

305	310								315				320			
Leu	Ser	Pro	Asp	Ser 325	Ile	Glu	Gly	Gln	Leu 330	Ile	Leu	Lys	Asp	Lys 335	Phe	
Ile	Thr	Gln	Ser 340	Ala	Ala	Asp	Ile	Arg 345	Lys	Asn	Phe	Lys	Ser 350	Leu	Pro	
Ala	Arg	Ser 355	Arg	Thr	Lys	Pro	Tyr 360	Leu	Thr	Trp	His	Pro 365	Gln	Phe	Phe	
Ile	Ile 370	Glu	Ile	Arg	Arg	Ser 375	Arg	Arg	Asn	Gly	Thr 380	Asn	Gly	Ile	Lys	
Lys 385	Lys	Gly	Gly	Val	His 390	Tyr	Phe	Ser	His	Gly 395	Pro	Gln	Ala	Ser	Arg 400	
Leu	Trp	Arg	Leu	Cys 405	Lys	Arg	Glu	Lys	Leu 410	Gly	Lys	Ser	Asn	Ala 415	Gly	
Trp	Leu	Pro	Val 420	Arg	Ser	Thr	Arg	Thr 425	Leu	Lys	Arg	Leu	Ser 430	Lys	Lys	
Ala	Ala	Pro 435	Leu	Ser	Met	Pro	Leu 440	Thr	Ser	Arg	Glu	Ser 445	Leu	Glu	Gly	
Pro	Leu 450	Pro	Gln	Gly	Met	Lys 455	Ile	Leu	Val	Arg	Ser 460	His	Pro	Asp	Asp	
Pro 465	Ala	Ala	Gly	Leu	Arg 470	Val	Pro	Gly	Ala	Ser 475	Ala	Ser	Pro	Cys	His 480	
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Asn	Asp	Leu	Tyr 20	Ser	Ser	Ala	Val	Pro 25	Pro	Gly	His	Asn	Ile 30	Leu	Phe	
Lys	Gly	Glu 35	Lys	Pro	Gly	Phe	Leu 40	Arg	Glu	Val	Ile	Ile 45	Thr	Ser	Ser	

Tyr Ser Thr Ser Ser Val Glu Arg Arg Ala Asn Gly Val Lys Cys His
 50 55 60

Met Cys Lys Leu Ser Phe His Glu Thr Thr His Asn Tyr Val Lys Ser
 65 70 75 80

Val Val Tyr Ala Leu Gln Glu Ala Leu Arg Val His Leu Pro Thr Pro
 85 90 95

Ala Ser Pro Pro Arg Leu Leu Pro Gln Leu Ile Arg Thr Pro Leu Pro
 100 105 110

Lys Arg Ser Lys Arg Arg Thr Lys Gly Thr Met Asn Gln Arg Val Pro
 115 120 125

Ile Phe Pro Asp Tyr Ala Pro Ser Lys Gln Glu Glu Glu Asn Ser Ala
 130 135 140

Gln Pro Glu Cys Leu Tyr Leu Phe Leu Ser Gln Thr Ser Lys Leu Lys
 145 150 155 160

Thr Val Asn Ser Gln Ile Thr Leu Thr Ala Ile Leu Met Phe Tyr Lys
 165 170 175

Gly Asp Asn Pro Leu Ile His Gly Glu Ile Cys Tyr Tyr Ile Arg His
 180 185 190

Pro Gln Met Arg Glu Val Pro Leu Leu Gln Pro Glu Ser Leu Ala Ile
 195 200 205

Phe Gly Ile Ser Val Arg Pro Thr Ile Gly Gln Gln Arg Lys Glu Gln
 210 215 220

Leu Pro Gln Ala Ser Arg Gln Phe Pro Val Thr Leu Ile Gly Thr Gln
 225 230 235 240

Asn Gln Asn Met Glu Ile Gly Ala Thr Asn Ile Cys Leu Ala Cys Lys
 245 250 255

Asp Gly Lys Leu Gly Arg Ser Leu Ile Thr Gln Cys Pro Leu His Arg
 260 265 270

Glu Arg Lys Lys Ile Leu Leu Leu Phe Trp Thr Asp Gly Arg His Gly
 275 280 285

Ser Ile Pro Pro Cys His Leu Thr Leu Leu Lys Ala Asn Ser Arg Ile
 290 295 300

Ser Leu Ser Leu Ser Gln Leu Gln Thr Leu Glu Lys Thr Ser Lys Val
 305 310 315 320

Cys Leu Arg Pro Gly Ala Glu Leu Arg Asn Pro Ile Leu Gly Ile Leu
325 330 335

Ser Phe Leu Arg Ser Gly Gly Ala Gly Glu Thr Gly Gln Thr Gly Lys
340 345 350

Lys Lys Gly Gly Ser Thr Thr Leu Val Met Ala Leu Arg Gln Ala Asp
355 360 365

Phe Gly Gly Ser Ala Lys Gly Lys Ser Trp Ala Asn Gln Met Pro Asn
370 375 380

Arg Ala Gly Phe Gln Cys Gly Leu Gln Gly His Phe Lys Lys Asp Tyr
385 390 395 400

Pro Ser Arg Asn Lys Pro Pro Pro Cys Pro Cys Pro Leu Arg Gln Gly
405 410 415

Asn His Trp Lys Ala His Cys Pro Arg Gly Arg Tyr Ser Glu Ser Glu
420 425 430

Ala Ile Asn Gln Met Ile Gln Gln Gln Asp Gly Cys Pro Gly Arg Ala
435 440 445

Pro Ala His Ala Ile Thr Leu Thr Glu Pro Arg Val Cys Leu Thr Ile
450 455 460

Glu Ser Gln
465